

**New Advances in 2013:
The 40th Anniversary of the Cancer
Center at Johns Hopkins**

**William G. Nelson, M.D., Ph.D., Director
Sidney Kimmel Comprehensive Cancer Center**

SKCCC Brief History

- 1968 - First formal cancer research program; Albert H. Owens, M.D., Director
- 1973 - authorized by the Trustees of the University and Hospital as academic Department and Hospital Functional Unit
- 1976 - Designated as NCI Comprehensive Cancer Center
- 1992 - Martin D. Abeloff, M.D. named Director
- 2001 - \$153.9M naming gift from Sidney Kimmel
- 2008 - William G. Nelson, M.D., Ph.D. named Director
- 2011 - 50th year of NCI support for cancer research
- 2013 - 40th anniversary of authorization by the Trustees



NO. 5032 APRIL 9, 1966

NATURE

PRODUCTION OF GRAFT-VERSUS-HOST DISEASE IN THE RAT AND ITS
TREATMENT WITH CYTOTOXIC AGENTS

By PROF. G. W. SANTOS* and PROF. A. H. OWENS, jun.

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Baltimore City Hospitals, Baltimore, Maryland

THE NEW ENGLAND JOURNAL OF MEDICINE

Dec. 18, 1975

ELEVATED HISTAMINASE (DIAMINE OXIDASE) ACTIVITY IN SMALL-CELL
CARCINOMA OF THE LUNG

STEPHEN B. BAYLIN, M.D., MARTIN D. ABELOFF, M.D., KATHLEEN C. WIEMAN,
J. WALTON TOMFORD, B.A., AND DAVID S. ETTINGER, M.D.

SKCCC Clinical Program Capacity

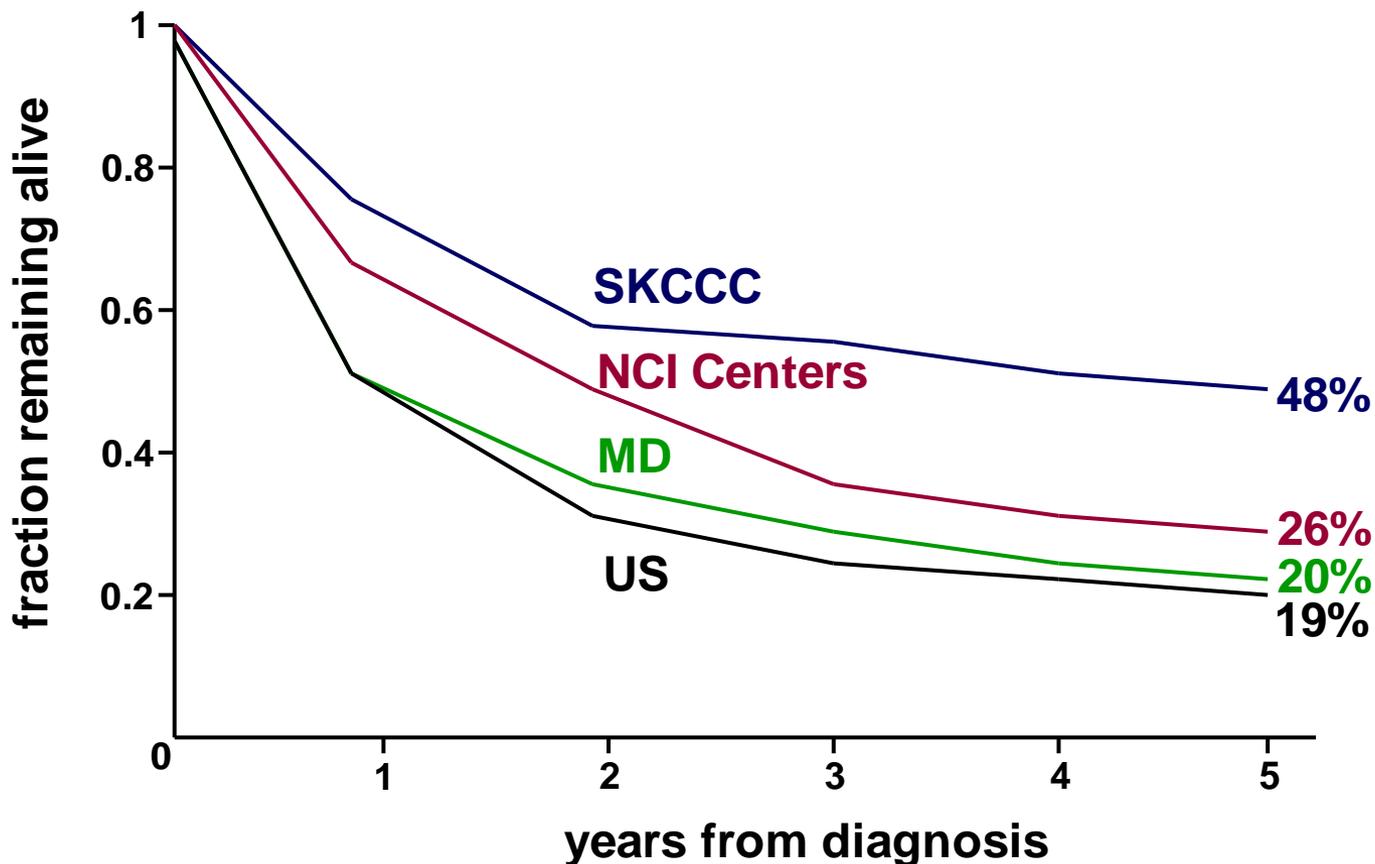
Medical/Pediatric Oncology

- Inpatient (all at Weinberg Building in East Baltimore)
 - 80 beds for Medical Oncology, Hematologic Oncology, Hematology
 - 20 Pediatric Oncology beds
- Outpatient
 - East Baltimore: 60 infusion chairs, 30 IPOP/infusion chairs, 30 exam rooms
 - Greenspring Station: 12 chairs
 - Bayview Medical Center: 12 chairs
 - Sibley Hospital: 12 chairs
 - Suburban Hospital: 6 chairs
- Housing
 - Hackerman-Patz Patient and Family Pavilion: 40 suite hotel
- Surgery
 - 50% of all surgery at JHH is for cancer



Quality of Cancer Care at SKCCC and Other NCI-Designated Cancer Centers

Example: AJCC Stage I Pancreatic Cancer



Multidisciplinary Pancreatic Cancer Clinic: Patient Experience

Time period	Objective
07:00–09:00	Arrival; necessary imaging and laboratory studies obtained
09:00–10:00	Patients given overview of support services (10–15 min briefings) <ul style="list-style-type: none">• Nutrition• Social work• Nursing• National familial pancreas tumor registry
10:00–12:00	Patients seen by physician extenders (nurse practitioners, physician assistants, residents, and fellows) for complete history/physical exam
12:00–14:00	Formal case review by multidisciplinary tumor board <ul style="list-style-type: none">• Cases presented using proscribe outline• Pathology reviewed• All imaging reviewed• Assess for eligibility for clinical trial• Case discussed and consensus recommendations reached
14:00–16:00	Full details recommendations discussed with patient; note dictated to referring physician

Multidisciplinary Pancreatic Cancer Clinic: Effect on Treatment Planning

Reason for change in recommended management for 48 out of 203 (23.6%) of consecutive pancreas cancer patients		Number of patients
Change in findings of cross-sectional imaging	No lesion seen on repeat imaging	4
	Previously unrecognized locally unresectable disease	3
	Previously unrecognized metastatic disease	26
	Disease deemed to be resectable	5
Change in diagnosis based on pathologic review		7
Change in surgical recommendation		5

*Pawlik TM *et al.* Ann Surg Oncol 15: 2081-8 (2008);
Zhang J *et al.* Curr Oncol 20: e123-31 (2013).

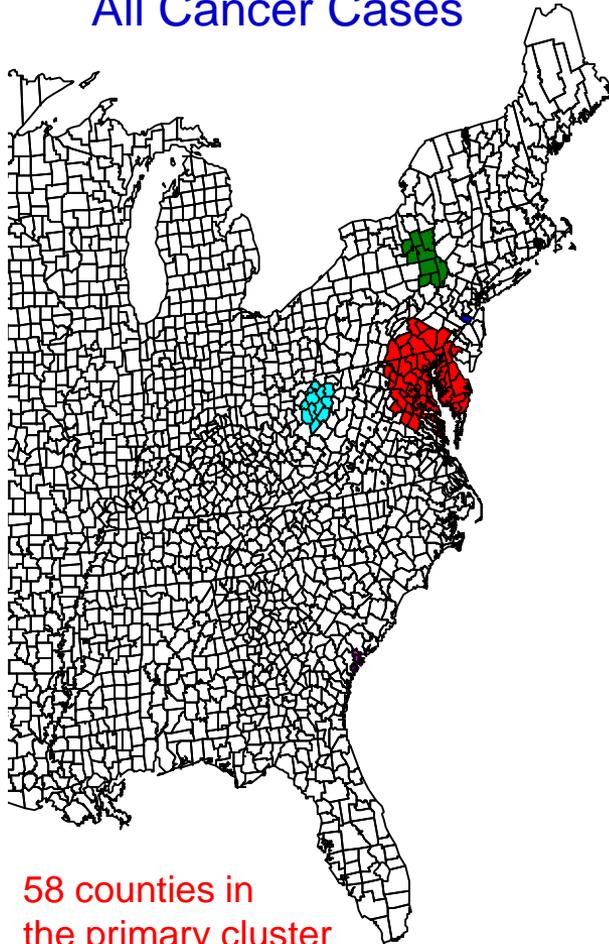
Current Range of Multidisciplinary Initial Evaluation Clinical Services

- SKCCC Multidisciplinary Clinic offerings in:
 - Head and Neck Cancers
 - Lung Cancer (including a Pulmonary Nodule Clinic)
 - Breast cancer
 - Prostate Cancer
 - Liver Cancer
 - Colorectal Cancer
 - Pancreas Cancer
- ~10-20% of new patients with these diseases pass through these Clinics
- Key personnel is **Clinic Coordinator**- usually an NP with specialized expertise
- **Diagnosis/tumor grade/tumor stage changes** for as many as **25% or more** of cases with treatment implications*

*Pawlik TM *et al.* Ann Surg Oncol 15: 2081-8 (2008);
Zhang J *et al.* Curr Oncol 20: e123-31 (2013).

SKCCC Regional Impact

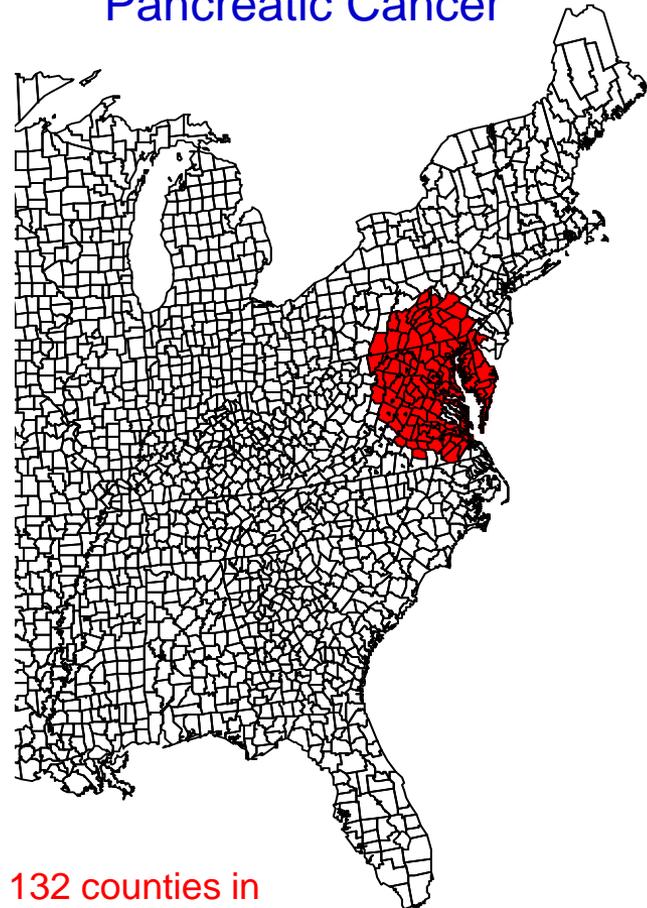
All Cancer Cases



58 counties in
the primary cluster

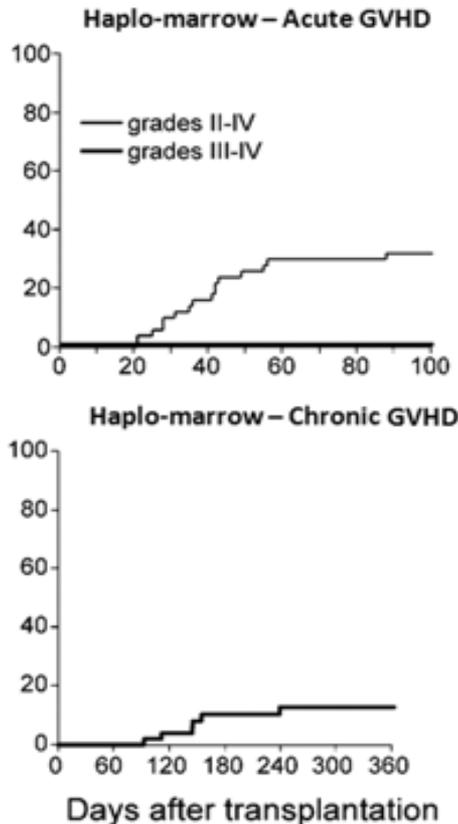
9 counties in the
secondary cluster

Pancreatic Cancer



132 counties in
the primary cluster

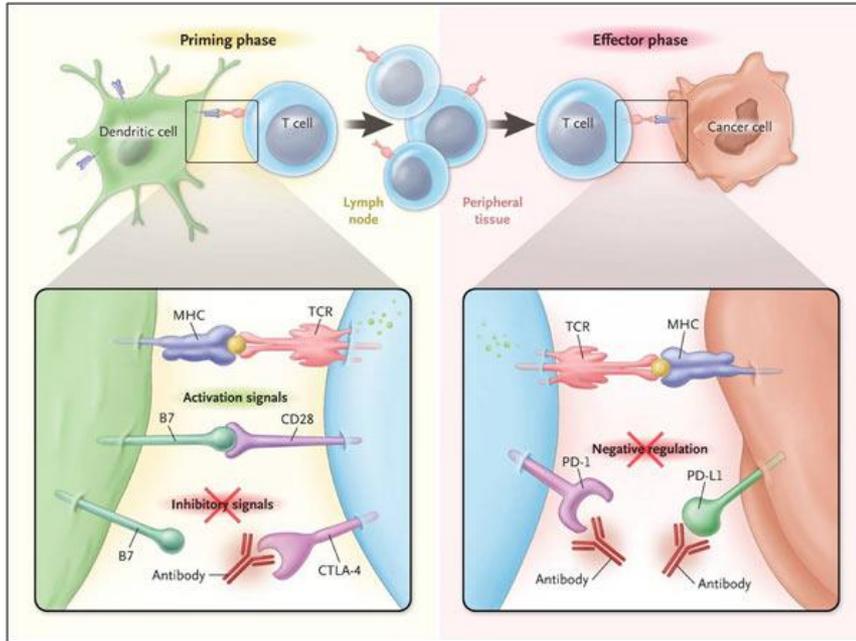
New Nonmyeloablative Bone Marrow Transplantation (NMBT) Strategy has Nearly Eliminated Graft-Versus-Host Disease (GVHD) from Allogeneic Bone Marrow Transplantation (alloBMT)*



- NMBT using haploidentical donors now treatment of choice for many leukemias and lymphomas despite race/ethnicity or age
- Post-transplantation lymphoproliferative disorder (PTLD) eliminated by NMBT
- Improved outcome for poor-risk (FLT3-ITD mutation) acute myeloid leukemia with NMBT
- NMBT mechanism appears to involve sparing of “regulatory T-cells”
- 8 of 17 subjects with sickle cell disorder and frequent and severe pain crises have been cured of disease by NMBT
- NMBT Appears to improve outcomes of other major organ transplants

*Brunstein CG *et al.* Blood 118: 282-288 (2011); Bolanos-Meade J *et al.* Blood 120: 4285-91 (2012); Kanakry CG *et al.* Sci Transl Med 5: 211ra157 (2013); Kanakry JA *et al.* Biol Blood Marrow Transplant 19: 1514-7 (2013); DeZern AE *et al.* Biol Blood Marrow Transplant 17: 1404-9 (2011)

Immune Checkpoint Inhibitors are Poised to Transform Cancer Care: **Development of Nivolumab***



Patient with Melanoma



Patient with Renal-Cell Cancer
Before Treatment

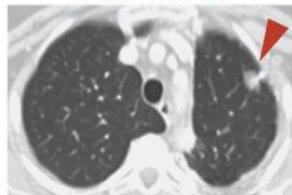


6 Months

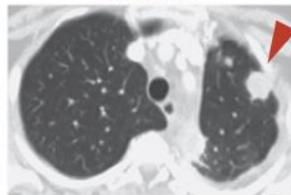


Patient with Non-Small-Cell Lung Cancer

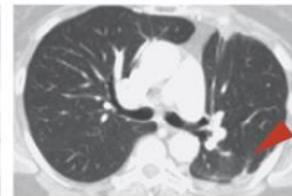
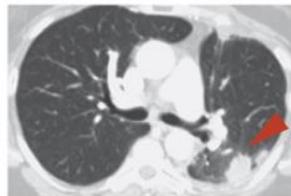
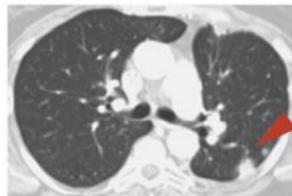
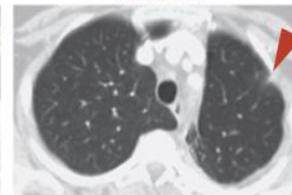
Before Treatment



2 Months



4 Months



*Toplian SL *et al.* New Engl J Med 366: 2443-54 (2012)